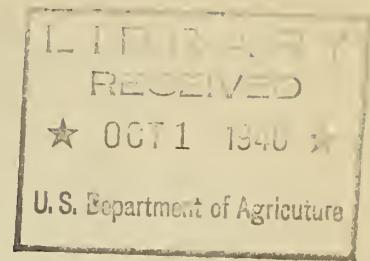


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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service



INSTRUCTIONS
FOR WEIGHING LIVESTOCK AND LIVE POULTRY
AT MARKETS SUBJECT TO THE PACKERS AND STOCKYARDS ACT

Washington, D. C.
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Balancing the Empty Scale

1. Keep scale in balance: Before weighing commences, the scale shall be balanced and thereafter, during the weighing operations, the empty scale shall be rebalanced at sufficiently frequent intervals to insure accurate weights. Whenever a weigher is temporarily absent from a scale so that he cannot see what is going on during such absence, he shall, on his return, rebalance the scale before resuming weighing.
2. Position of beam when scale is in balance: The weigher shall not be satisfied with the balance of the scale until the beam has swung freely through at least one complete movement up and down in the trig loop and eventually comes to rest at about the center of the trig loop. When the beam has reached this position, the scale may be regarded as being in proper balance.
3. Balance ball not to be disturbed: No change shall be made in the adjustment of the balance ball except when the scale is empty and a balance is being obtained.

Balancing the Scale When Weighing

4. The correct weighing balance: The proper weight to be taken is that shown on the beam when the beam is balanced nearest to the center of the trig loop. In modern type-registering beams, the weight indications consist of so-called minimum subdivisions on the beams, usually 5 pounds, so that a perfect center balance cannot always be obtained. The beam shall be allowed to make at least one swing in the loop from the bottom to the top before the weighing balance is accepted as final. The weigher, in weighing, should watch the end of the beam when balancing the scale, not the poise, and should not know the weight indicated until he has finished balancing.
5. Recording the weight: The record of the weight shall be made immediately after the proper balance has been obtained. Nothing shall be done to change the indication or condition of the beam until the weight is recorded. No changes for assumed errors in the scale or for dockage shall be included in the figures for the original weight record and entry. A type-registering weight record shall be the actual weight shown by the beam. Under no circumstances shall a type-registering record be made and used as the basis of buying and selling where the weight was not actually and correctly obtained, or where the weight recorded mechanically was not that actually indicated by the scale, and impressed on the ticket at the time when the weighing was made. Where, for some reason, the type record ordinarily obtained is not made or is not clear, the ticket shall be marked void and a new one made before livestock is removed from the scale.

General

6. Portable platform scales: This type of scale is ordinarily used for weighing live poultry and empty coops. It is equipped with loose counterpoise weights. These weights shall be tested at the time the scale is tested and thereafter the counterpoise weights associated with the particular scale shall be used only on that scale. No loose parts such as nuts, bolts, washers, or the like shall be used as a substitute or an addition to tested counterpoise weights.

7. Impartiality: The duties of weighmasters require that they exercise the utmost impartiality in making the weighings, and they shall endeavor to conduct themselves so that this is apparent to those interested in the weights.

8. No secrecy about the weighing: The weigher shall operate the beam so that its balance can be plainly seen by anyone in the scale house who desires to know the manner in which the weighing is carried out. Those concerned in the weighing have a right to be informed as to the methods. The weigher may therefore answer questions put to him concerning the weighing, and make accessible a copy of these instructions to those interested.

9. Proper weighing required: It shall be clear that it is neither the right nor the privilege of the salesman or anyone concerned in the buying and selling of livestock to waive any of the requirements that are called for in obtaining or safeguarding correct weights. The weigher shall not permit himself to be influenced to depart from the proper weighing methods herein set forth, as, for instance, to be hurried in the weighing or do anything that will jeopardize the accuracy of the weights. When a complaint is made and a reweighing is desired, it shall be made and the same procedure shall be followed in making a reweigh as that followed in obtaining the original weight in accordance with these instructions.

10. SR (sensitivity reciprocal) of the scale: Weighers shall be familiar with the so-called SR of the scale because an excessive amount of SR impairs the accuracy of the weighing. The SR simply means the amount of weight required on a scale platform to change the balance position of the beam from the middle of the loop to the top or the bottom of the loop. The weigher may determine this, approximately, by first balancing the beam in the center of the loop, then moving the fractional poise backward or forward until the beam rests at the bottom or the top of the loop. If the amount then shown by the fractional poise is more than twice the minimum graduations of the beam, there is too much SR. For example, if the minimum graduation of the beam is 5 pounds and it takes 15 pounds to bring the beam to the top or bottom of the loop, the SR is excessive by 5 pounds. Whenever the weigher finds that the SR of the scale exceeds the amount above indi-

cated, he shall stop weighing until the cause of the condition is found and corrected. The SR of the scale shall be rechecked every day before weighing commences, and when the weather is freezing the weigher shall check the SR every 2 hours.

11. Friction to be removed: Where a scale and beam are in good condition and alignment, the friction will be small, and when the beam is balanced and released without jar or vibration, it will swing upward from the bottom of the loop and just clear the top of the loop, and will return to within about one-sixteenth of an inch of the bottom of the loop. Whenever friction develops, it shall be removed. Friction often occurs at the knife edges from the bearings getting tight against the beam. This can be removed by using a heavy screwdriver and spacing the loops evenly along the knife edges. For persistent trouble in this respect, see paragraph 21 on faulty alignment.

12. Keep scale free from binds: Scales are subject to interferences or binds that cause errors. Binds arise frequently. Weighers shall always be on the alert to discover them. Generally binds affect the action of the beam. Sometimes this is conspicuous; at other times, important binds will make a change in beam action which will be noted only by a careful weigher. Usually binds increase the SR. In pronounced binding of certain kinds, the motion of the beam will be quickened. Friction may or may not appear in the beam action when a bind occurs. Small binds are often disclosed by the friction causing the motion of the beam to die down rapidly.

13. Keep foreign objects from scale: Whenever the weigher is using the scale in weighing or putting the scale in balance, he shall assure himself that objects, not a proper part of the scale, are not on the beam counterpoise or other live parts of the scale. For instance, nothing shall be on or in the poise during the weighing.

14. Scale free from interferences: The weigher shall assure himself that no persons or animals are against the scale or where they can cause interference. In the scale pit, rats, cats, etc., may get on parts having a "high multiplication" and become a source of error which is to be guarded against.

15. Weighings shall not be made on incorrect or unreliable scales: If a weigher has reason to believe that any scale may not be giving correct weights, he shall report the matter to the person or agency responsible for scale maintenance. He shall not weigh on a scale that is incorrect or unreliable.

16. Printing mechanism: Whenever the printing device gives an imperfect record or non-uniform impression, it shall be promptly corrected.

17. Stops limiting the motion of the poises: Whenever the stops which limit the motion of a poise become worn, so that the poise can pass back of the zero notch, this condition shall be immediately corrected. Any wearing or defects in the stops in the other direction shall be noted and corrected the next time the scale is tested; provided, however, that if any parts become broken or loose or the defect is such that the action of the poise or mechanism becomes inaccurate when the poise passes its upper stop, correction shall be made immediately.

18. Loose or broken parts: When a part of a poise becomes loose, lost or broken, weighing shall be discontinued until repairs are made.

19. Repairs to poise not to be made by weighers: The weigher shall not make temporary repairs to poises; such as by using rubber bands in place of broken springs or by the addition or removal of parts. This is to prevent other than competent persons from making repairs and to assure that repairs will be followed by suitable tests.

20. Retest on scale after repairs: Whenever any repairs or replacements are made to the scale beam, poise, or other parts, that may affect the accuracy, the scale shall not be used until it is retested.

21. Faulty alignment of the beam and parts: Whenever a faulty alignment of the parts is indicated by the beam tending to work to one side of the loop or the other or by the tendency of the parts to get in a position causing friction in the beam or binding or where it is discovered by other observations that a faulty and unstable arrangement of the parts exists, the trouble shall be promptly corrected.

22. Retest after realigning: Changes in the alignment of the scale parts may affect either or both the sensitiveness and the multiplication of the scale so that all changes in alignment must be followed by tests.

23. The beam shall not be roughly handled: The weigher shall not handle the beam roughly and shall not bump it up and down or sideways. Although the beam is apparently strong and can be roughly handled without visible damage, the accuracy of the weighing depends upon the maintenance of very exact relations between the knife edges and other parts that are readily damaged or depreciated by rough treatment.

